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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/870,397	05/31/2001	Yoshiki Nakagawa	21581/0271	8066

7590

04/09/2003

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EXAMINER
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MOORE, MARGARET G

ART UNIT	PAPER NUMBER
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1712

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DATE MAILED: 04/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/870,397

Applicant(s)

NAKAGAWA ET AL.

Examiner

Margaret G. Moore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 13 to 22, 24 and 25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13 to 22, 24 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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1. Claims 21 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 is drawn to a vinyl polymer which can have silyl terminal groups, not to a silyl terminated vinyl polymer per se. As such it is unclear if claim 21 limits the polymer in claim 13 to those that are silyl terminated or if this claim is meant to be further limiting of the vinyl polymer in claim 13 when it is the silyl terminated polymer.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 13 to 20, 23 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Matyjaszewski et al.

This rejection is based on the rationale noted in the previous office action. In applicants' response, they state that patentees suggest only PMMA having –OH at the end of the polymer and that this differs from that claimed. It is not clear, however, how this differs from that claimed. The (meth)acrylic monomer required by the instant claims is met by the (meth)methacrylate monomer in Matyjaszewski et al. Page 6 of applicants' specification confirms this position. The terminal –OH group and polydispersity of the polymer in Example 23 of Matyjaszewski et al. meet those claimed. As such, this rejection is maintained.

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4. Claims 13 to 16 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Bronstert et al.

In applicants' response, they state that Bronstert suggests only butadiene or isoprene polymers having terminal hydroxyl groups. This is not true. Note for instance column 4, lines 43 to 60, which teaches styrene block copolymers. This meets the claimed limitation of a monomer containing at least one styrenic monomer, and thus Bronstert et al. do teach polymers as claimed. Note also column 3, line 44, and column 4, lines 15 to 20. Column 4 confirms that the polydispersity of the polymers meets that claimed, while line 39 on column 5 teaches the terminal -OH group.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 19 and 20 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as being obvious over Bronstert et al.

This rejection is maintained for reasons of record. Applicants' traverse this rejection by stating that inherency requires that the recited results must be obtained rather than might be obtained. However the polymer as claimed appears to be the same as that which is necessarily obtained in Bronstert et al., since the backbone, Mw/Mn and functional group limitations claimed are met by the prior art. Applicants have not shown any differences between the polymer prepared by the method claimed and the polymer prepared in Bronstert et al. As such this position is maintained.

7. Applicants' amendment, requiring that some of the functional groups be the silyl group of formula (1) (for instance new claim 24) has necessitated the following new grounds of rejection.

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8. Claims 13 to 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Antonelli et al.

Antonelli et al. teach crosslinkable polymers having terminal functional groups. See for instance the end groups shown on column 3, lines 45 to 65, which include silyl groups meeting the claimed formula (1) and having the preferred Y groups of claims 21 and 22. Examples 2 and 3 prepare polymers having a main chain formed from methacrylate monomers. This has a Mw/Mn limitation meeting that claimed. This differs from that claimed in that it does not show a terminal silyl group as required. However as shown on column 3, lines 45 to 65, such silyl groups can be used to form the terminal functional groups in Antonelli et al. and as such one having ordinary skill in the art would have found silyl termination on the polymers in Examples 2 and 3 to have been obvious, thereby rendering obvious the instant claims.

With regards to claims 19 and 20, the Examiner relies on the rationale of record for these product by process limitations.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret G. Moore whose telephone number is 703-

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308-4334. The examiner can normally be reached on Mon., Wed., Thurs. and Friday, 10am to 4pm..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Dawson can be reached on 703-308-2340. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9311 for regular communications and 703-872-9310 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Margaret G. Moore  
Primary Examiner  
Art Unit 1712

mgm  
April 7, 2003